

The CarbonNet Project



AIE CCS seminar & site visit

Mel Barker, Environmental & Regulatory Affairs Manager – CarbonNet Project
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DEPARTMENT OF
PRIMARY INDUSTRIES

CarbonNet – an introduction

- Investigating the potential for large scale carbon capture and storage in the Gippsland region
- Managed by the Victorian Department of Primary Industries
- An Australian Government CCS Flagship Project
- Currently at feasibility stage

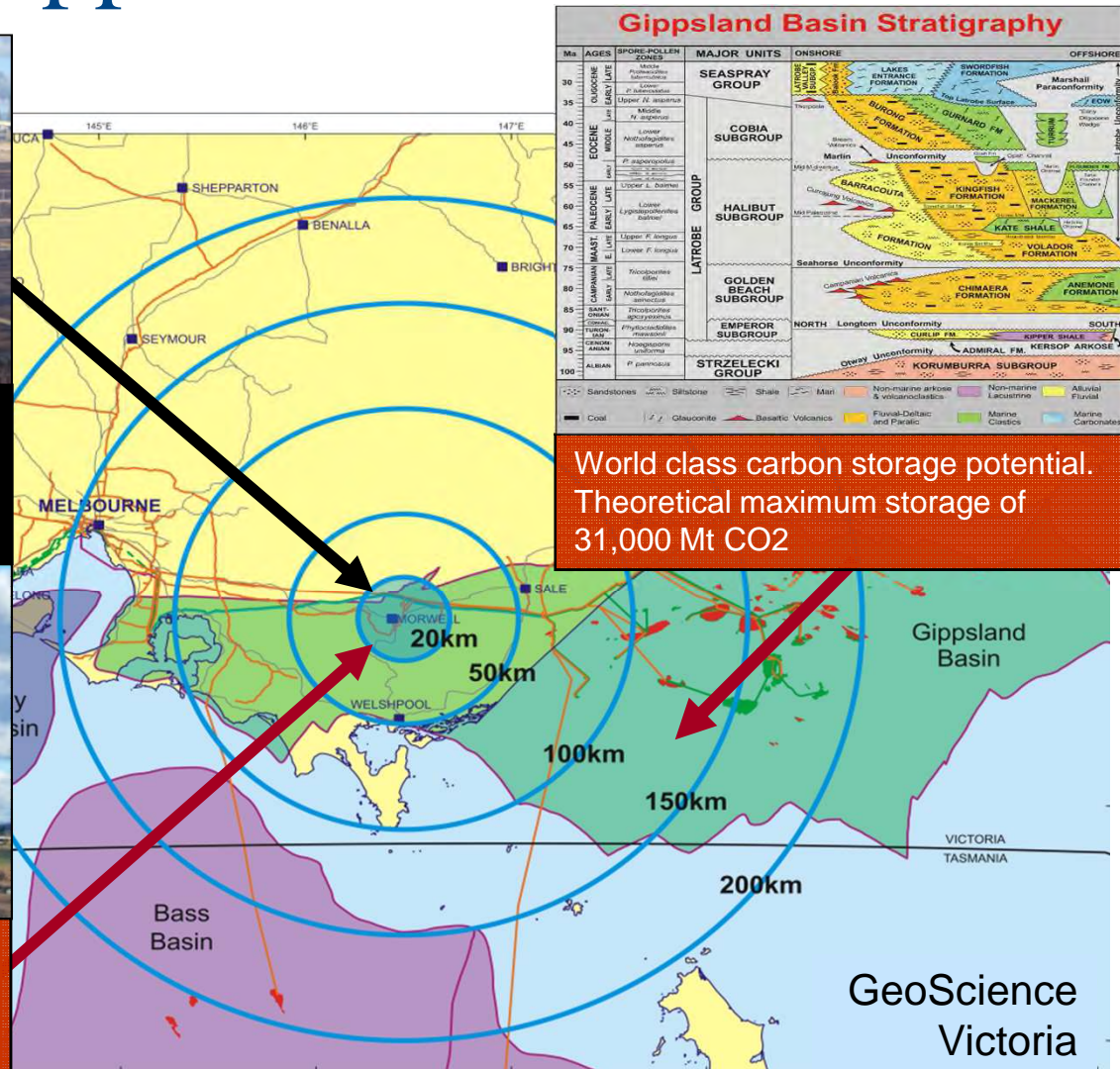
Why CCS in Gippsland?



Latrobe Valley Brown Coal
10's of billions of tonnes
500 years+ Electricity Supply

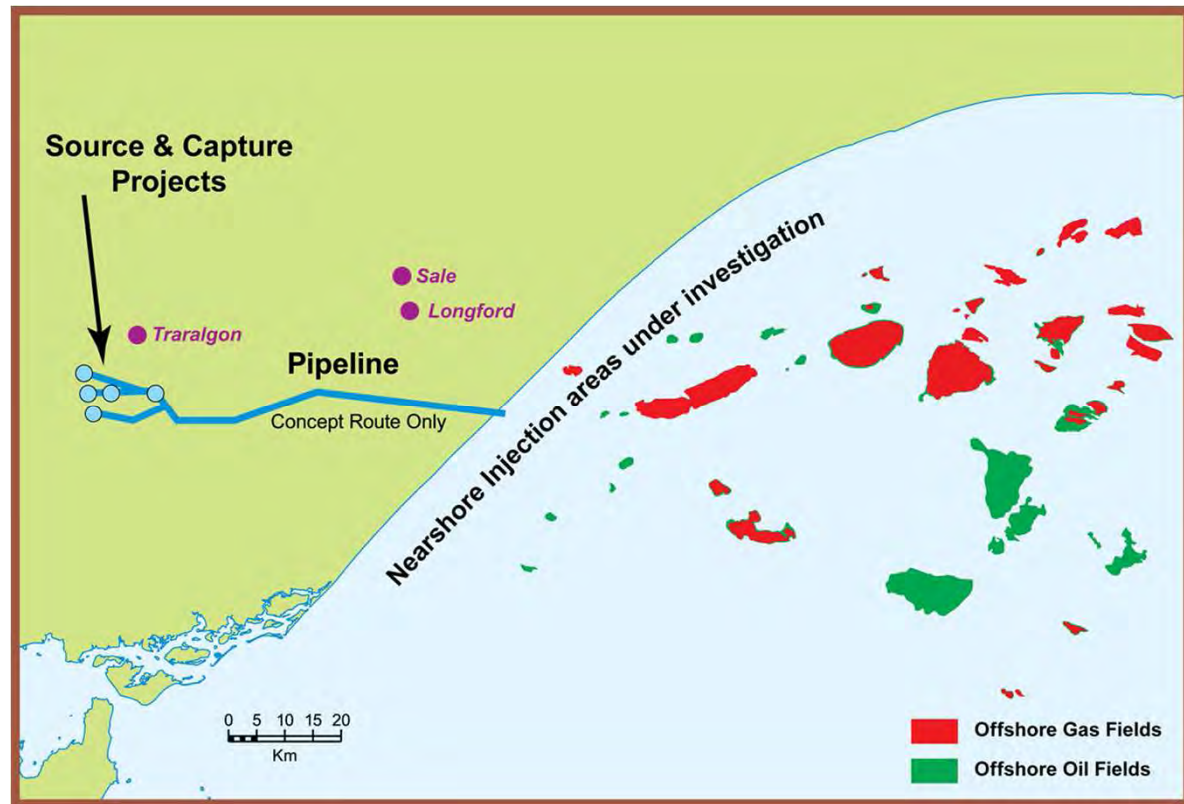


Some of Australia's highest emitting power stations
60 Mtpa CO₂



CarbonNet - the concept

The CarbonNet Project is investigating the potential for a large scale, multi-user carbon capture and storage (CCS) network in Victoria's Gippsland region



The benefits

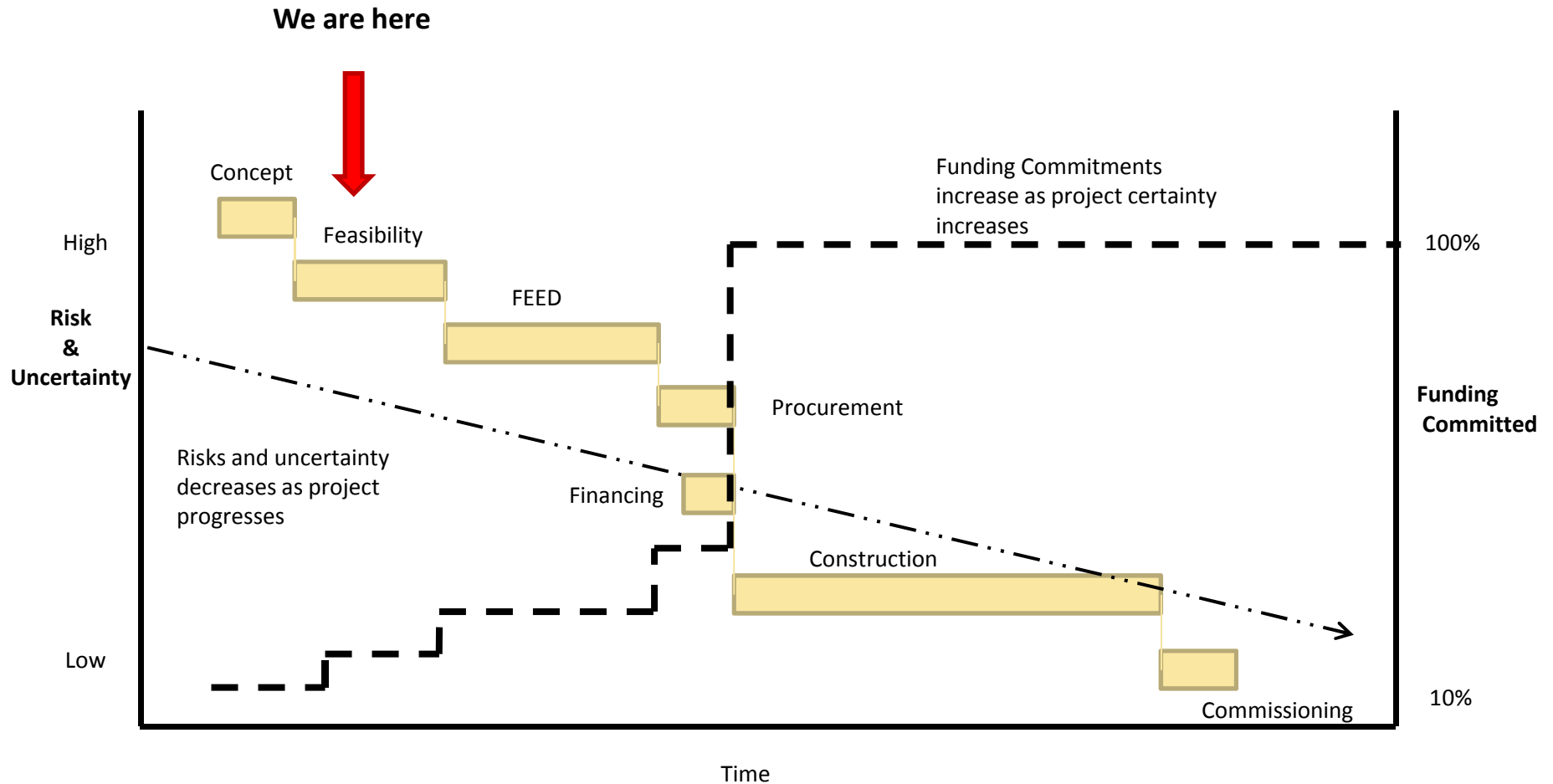
- An innovative new industry with the potential to secure jobs, boost skills and attract investment while strengthening Victoria's energy security in a low carbon future
- The potential to be a key component in the Latrobe Valley's transition to a low carbon economy
- A world-class location for CCS with huge potential geological CO₂ storage capacity in close proximity to the state's power stations
- The potential to prevent millions of tonnes of greenhouse gases from being emitted into the atmosphere

The challenges

CarbonNet is focused on addressing the five key challenges to enable CCS deployment

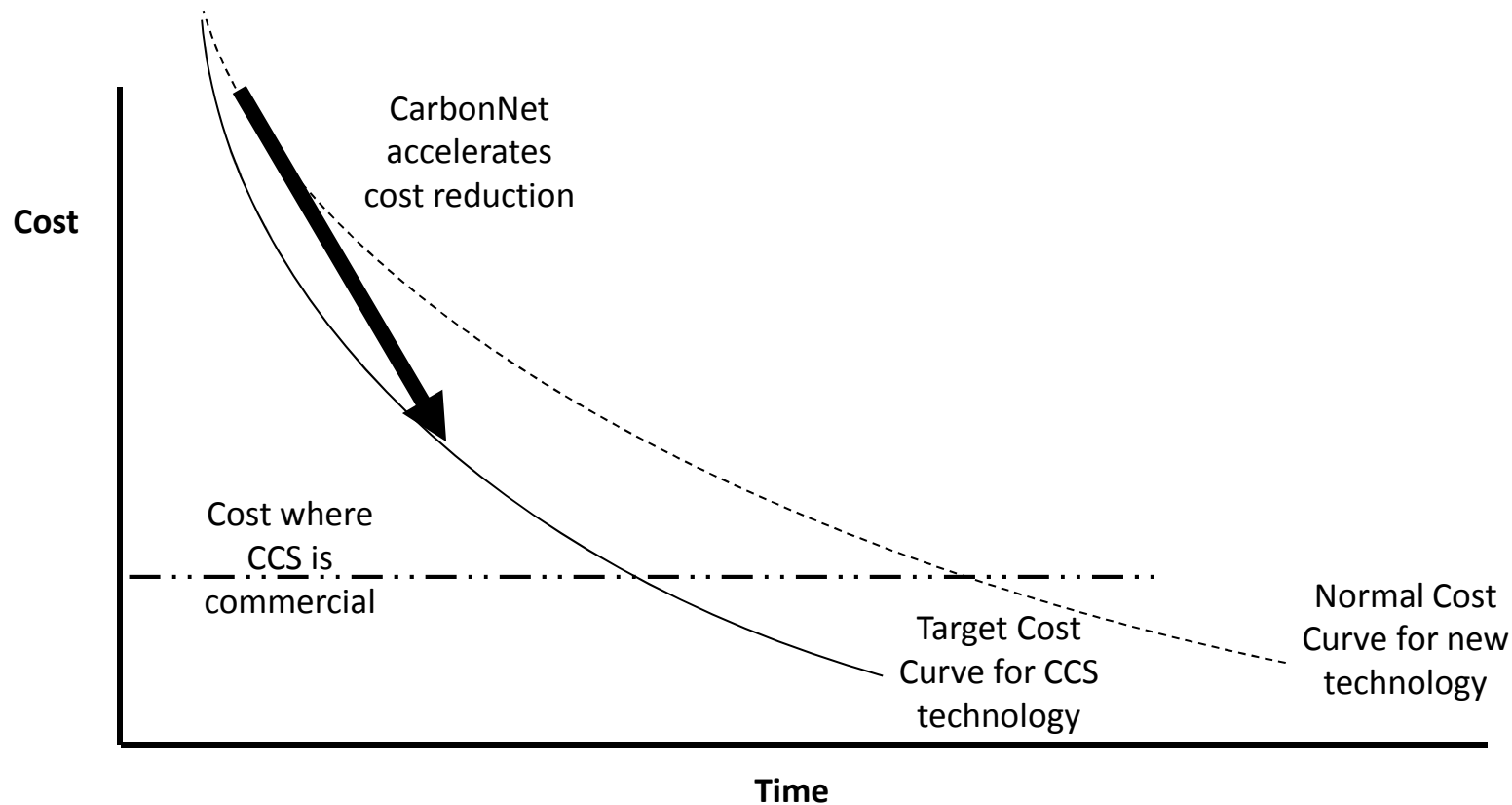
- Storage certainty
- Technology integration
- Regulatory requirements
- Commercial viability
- Public perception

A gated approach

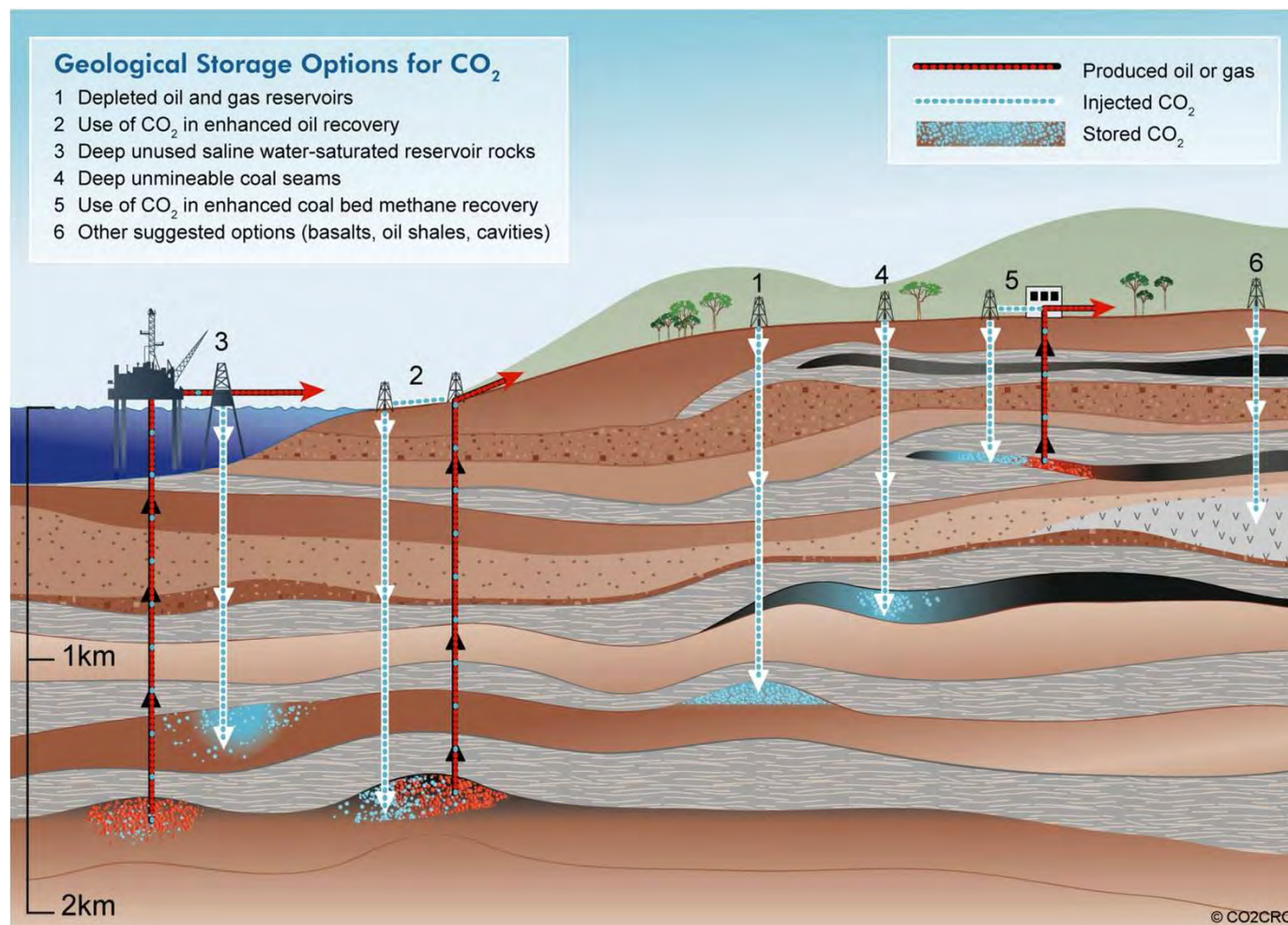


Business model

Various commercial structure options between government and the private sector are being examined



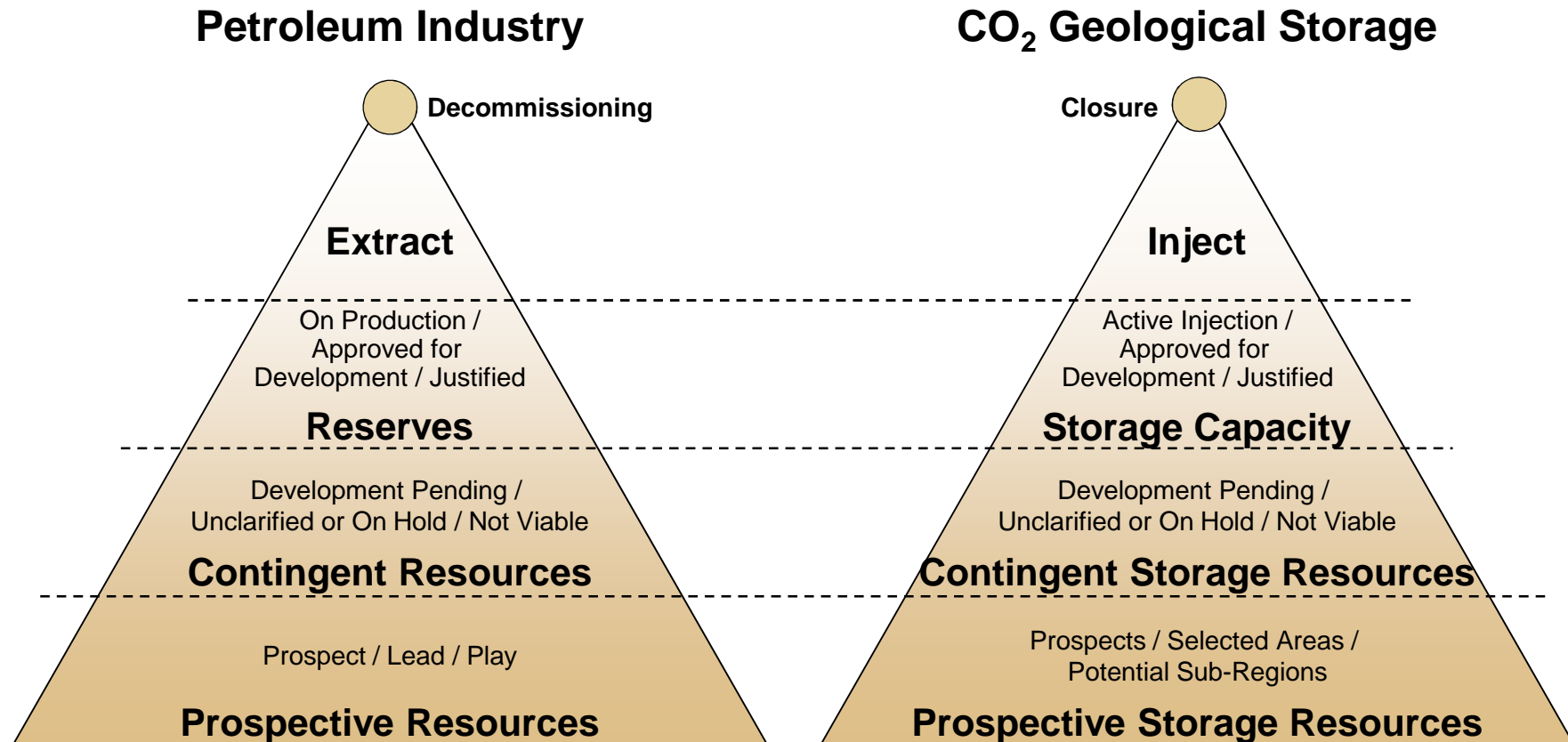
Storage



Source: CO2CRC

Assessing storage sites - approach

CarbonNet uses similar approach to the Petroleum Industry

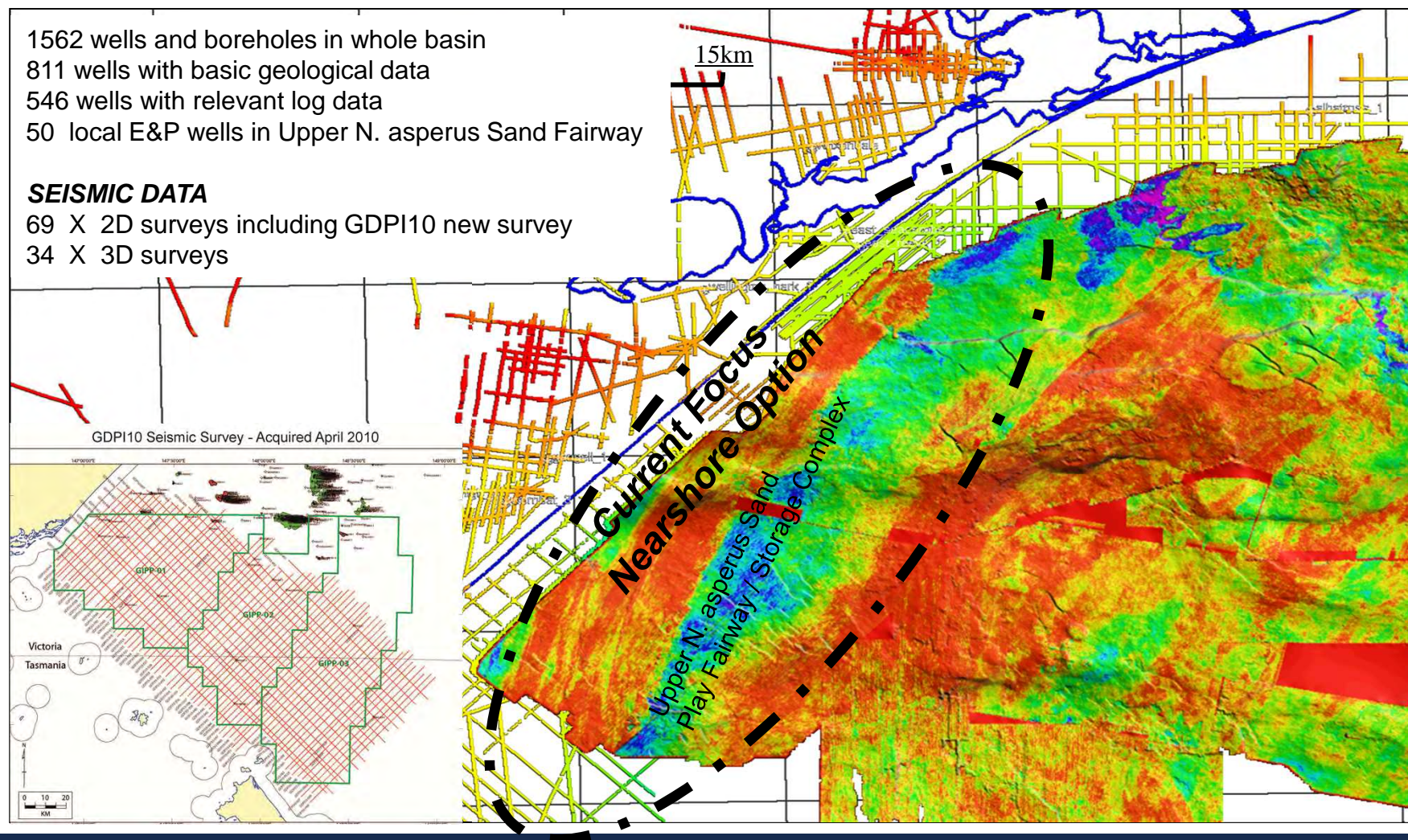


Storage

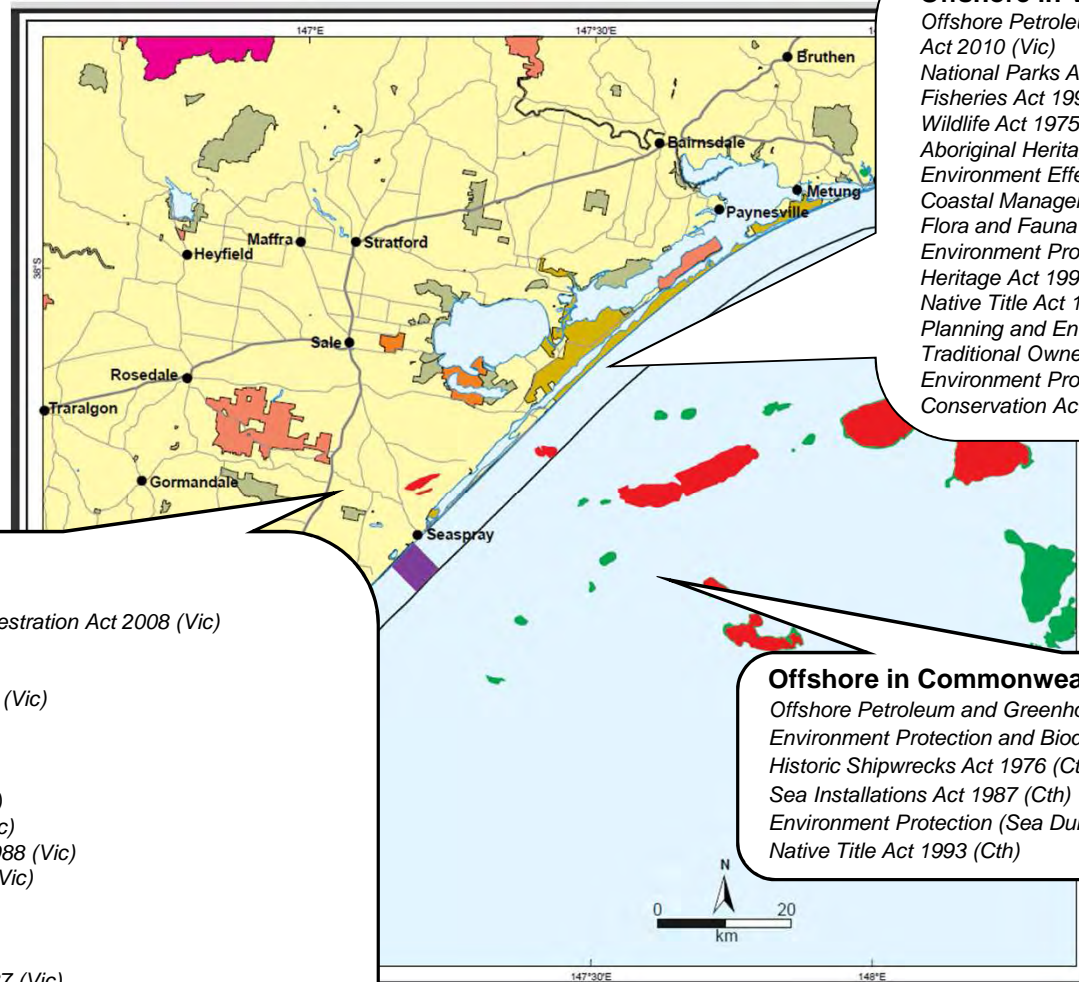
1562 wells and boreholes in whole basin
811 wells with basic geological data
546 wells with relevant log data
50 local E&P wells in Upper N. asperus Sand Fairway

SEISMIC DATA

69 X 2D surveys including GDPI10 new survey
34 X 3D surveys



Regulations



Onshore on Victorian land

Greenhouse Gas Geological Sequestration Act 2008 (Vic)
Pipelines Act 2005 (Vic)
Land Act 1958 (Vic)
Crown Lands (Reserves) Act 1978 (Vic)
Transfer of Land Act 1958 (Vic)
National Parks Act 1975 (Vic)
Aboriginal Heritage Act 2006 (Vic)
Environment Effects Act 1978 (Vic)
Coastal Management Act 1995 (Vic)
Flora and Fauna Guarantee Act 1988 (Vic)
Environment Protection Act 1970 (Vic)
Forests Act 1995 (Vic)
Heritage Act 1995 (Vic)
Native Title Act 1993 (Cth)
Planning and Environment Act 1987 (Vic)
Traditional Owner Settlement Act 2010 (Vic)
Wildlife Act 1975 (Vic)
Environment Protection and Biodiversity Conservation Act 1999 (Cth)

Offshore in Victorian waters

Offshore Petroleum and Greenhouse Gas Storage Act 2010 (Vic)
National Parks Act 1975 (Vic)
Fisheries Act 1995 (Vic)
Wildlife Act 1975 (Vic)
Aboriginal Heritage Act 2006 (Vic)
Environment Effects Act 1978 (Vic)
Coastal Management Act 1995 (Vic)
Flora and Fauna Guarantee Act 1988 (Vic)
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Planning and Environment Act 1987 (Vic)
Traditional Owner Settlement Act 2010 (Vic)
Environment Protection and Biodiversity Conservation Act 1999 (Cth)

Offshore in Commonwealth waters

Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)
Environment Protection and Biodiversity Conservation Act 1999 (Cth)
Historic Shipwrecks Act 1976 (Cth)
Sea Installations Act 1987 (Cth)
Environment Protection (Sea Dumping) Act 1981
Native Title Act 1993 (Cth)

Community engagement

- Regular briefings to community groups
- Close liaison with local government and other regional groups and organisations
- Community Engagement Adviser in Gippsland on a weekly basis
- Providing access to information
 - Presentations
 - Website and e-bulletins
 - Fact sheets
- A commitment to understanding local issues and interests

Working collaboratively

CarbonNet works collaboratively with many organisations:

- State Government of Victoria
- Commonwealth Government
- Global CCS Institute
- CO2CRC
- Clinton Climate Initiative
- Australian National Low Emissions Coal Research & Development (ANLEC R&D)
- Industry

CarbonNet – what's next?

Key activities over the next two years include:

- Conducting detailed assessments of the short-listed potential storage sites to determine the optimum location for the safe, long-term storage of CO₂
- Investigating potential carbon capture plants and transport pipeline routes
- Define the commercial structure and underlying principles to attract private sector investment
- Completing detailed analysis of the potential impacts on the Latrobe Valley of possible future changes to the energy industry
- Increasing community and stakeholder engagement



The CarbonNet Project

For further information,
including regular project
updates, please visit:

www.dpi.vic.gov.au/carbonnet

Contact us:

Carbonnet.Info@dpi.vic.gov.au